

PO9-99-014

09/253,250

Amendments to The Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a network computing system, an apparatus for providing direct processing access between a plurality of application servers on a single network and at least one application user comprising:

a main storage capable of establishing simultaneous processing communication with the a plurality of application servers on the single network;

said main storage containing a plurality of queues each assigned corresponding to a predetermined portion of said plurality of application servers, wherein said predetermined portion includes multiple application servers, each of said plurality of queues for retrieval of incoming data from and storage of incoming and outgoing data to any of its assigned predetermined portion of said plurality of application servers without causing interrupts in any running programs, said queues for retrieving data from and sending data to any of said application servers;

said main storage containing a queuing mechanism for setting up additional queues without causing interrupts in any running programs, said queues containing state information of said outgoing data for use by one or more applications of said plurality of application servers;

an interface element capable of establishing processing communication between said plurality of queues and said at least one application user; and

an interrogator operating independent of any application server for examining said plurality of queues to

PO9-99-014

09/253,250

transfer appropriate requests, responses and data between said application servers and said at least one application user.

2. (Previously Presented) The apparatus of claim 1, wherein said Interface Element further comprises a Connector Interface Element and a Network Interface Element.

3. (Original) The apparatus of claim 2, wherein said Connector Interface Element is in processing communication with said main storage via a Self-Timed Interface or an STI bus.

4. (Original) The apparatus of claim 2, wherein said Connector Interface Element comprises a plurality of processors.

5. (Original) The apparatus of claim 4, wherein one of said plurality of processors is used for redundancy purposes.

6. (Currently Amended) The apparatus of claim 2, wherein said main storage can be in processing communication simultaneously with a plurality of network elements and servers.

7. (Previously Presented) The apparatus of claim 6, wherein said plurality of network elements comprise at least a web-server.

8. (Original) The apparatus of claim 7, wherein said web-server is a TCP/IP oriented server.

9. (Previously Presented) The apparatus of claim 2, wherein said Connector Interface Element and said Network Interface Element are in processing communication with one another via a Peripheral Controller Interface bus or a PCI bus.

PO9-99-014

09/253,250

10. (Previously Presented) The apparatus of claim 2, wherein said Network Interface Element further comprises an I/O device adapter, at least one more processor and a local storage area.

11. (Original) The apparatus of claim 10, wherein said Network Interface Element is capable of connecting to one or more individual application users.

12. (Previously Presented) The apparatus of claim 1, wherein said Interface Element performs computing network environment functions establishing network communications between said application servers and said at least one application user.

13. (Previously Presented) The apparatus of claim 1, wherein said Interface Element performs control unit functions.

14. (Currently Amended) In a network computing system having a main storage capable of connecting to a plurality of application servers and an interface element with at least one adapter capable of establishing processing communication with at least one application user, an apparatus for providing direct processing access between said main storage and said at least one adapter comprising:

a plurality of queues in said main storage each for access by an assigned one of several separate predetermined subsets corresponding ones of said plurality of application servers, wherein each subset contains multiple ones of said plurality of application servers;

data receivers in each of said application servers for processing data;

each of said queues for retrieval from, and storage to, any of said application servers in said assigned one of said

PO9-99-014

09/253,250

separate predetermined subsets, of incoming and outgoing data while providing continuous running of programs without interruptions;

an updatior for changing the status of said network computing system every time new data is received, deleted or modified;

a queuing mechanism for setting up one or more additional queues in said main storage without causing interrupts in any running programs, said queues containing state information of said outgoing data for use by one or more applications of said plurality of application servers;

an interrogator operating independent of any application server for interrogating said plurality of queues in said main storage simultaneously to process any received data or requests such that data or requests may be received from more than one application server; and

a determinator for interrogation and routing of data to the appropriate application user to which said data has been forwarded.

15. (Previously Presented) The apparatus of claim 14, wherein said Interface Element further comprises a Connector Interface Element and a Network Interface Element.

16. (Original) The apparatus of claim 15, wherein said Connector Interface Element is in processing communication with said main storage via a Self-Timed Interface or an STI bus.

17. (Currently Amended) The apparatus of claim 15, wherein said main storage can be in processing communication simultaneously with a plurality of network elements and servers.

PO9-99-014

09/253,250

18. (Previously Presented) The apparatus of claim 15, wherein said Connector Interface Element and said Network Interface Element are in processing communication with one another via a Peripheral Controller Interface bus or a PCI bus.

19. (Previously Presented) The apparatus of claim 15, wherein said Network Interface Element further comprises an I/O device adapter, at least one more processor and a local storage area.

20. (Original) The apparatus of claim 19, wherein said Network Interface Element is capable of connecting to one or more individual application users.

21. (Original) The apparatus of claim 15, wherein said Connector Interface Element is in processing communication with said main storage via a direct access memory I/O device.

22. (Previously Presented) The apparatus of claim 15, wherein said Connector Interface Element and said Network Interface Element are in processing communication with one another via a direct access memory I/O device.